

REFERENCES

- LEGGE, W. V. (1880): A History of the Birds of Ceylon (2nd Edition 1983).  
 PHILLIPS, W. W. A. (1978): Annotated Checklist of the Birds of Ceylon (Sri Lanka) and personal notes on the nests and eggs of the birds of Sri Lanka (Ceylon).

15. SEPARATION IN THE HAND OF WHITEBROWED BLUE FLYCATCHER *MUSCICAPA SUPERCILIARIS* AND SLATY BLUE FLYCATCHER *MUSCICAPA LEUCOMELANURA*

Familiarity with these two species allows easy separation but until that familiarity is acquired, the problem of identifying females and first year birds can be a tricky one exacerbated by two factors. The first is the lack of illustrations of the birds except of breeding plumage adults — for example Ali and Ripley (1983), Ali, Ripley and Dick (1983) and Fleming, Fleming and Bangdel (1979). The second is that the key in Ali and Ripley (1983) can be difficult or confusing to use. For example, part of key suggests the third primary equals the fourth in *M. superciliaris* and that the third is shorter than the fourth in *M. leucomelanura*. While ringing at Haigam Rakh, Kashmir in September 1984, two first year *M. superciliaris* were caught — one male and one female. In both specimens the third primary was 1 mm shorter than the fourth.

To confirm the identification and to look for a sure way of separating the two species, an examination was made of the skins in the British Museum (Natural History), Tring, England. A total of 47 *M. superciliaris* and 20 *M. leucomelanura* was examined. Birds collected between June and September were ignored because of the possibility of the presence of not quite fully grown primaries.

Comparison of the third and fourth primaries

produced the following.

*M. superciliaris*:

- 3rd primary = 4th primary: 34%  
 3rd primary shorter than 4th: 63.8%  
 3rd primary longer than 4th: 2.1%

*M. leucomelanura*

- 3rd primary shorter than 4th: 100%

The two species can however be separated by wing point, i.e. the longest primary. Figures in brackets refer to the number of birds.

*M. superciliaris* — wing point is between 3rd and 4th/5th primaries as follows on the skins examined:

- |                            |      |
|----------------------------|------|
| wing point = 3rd primary   | (1)  |
| 3rd and 4th primaries      | (14) |
| 3rd, 4th and 5th primaries | (2)  |
| 4th primary                | (28) |
| 4th and 5th primaries      | (2)  |

Thus 89.4% of the birds had a wing point of either the 3rd and 4th primaries or the 4th primary.

*M. leucomelanura* — wing point is either the 5th primary (15) or 5th and 6th (5).

When the 3rd primary is shorter than the 4th, the two species can still be separated by measuring the difference.

*M. superciliaris* — range: 0.5-2.5 mm.  
 mean: 0.82 mm.

*M. leucomelanura* — range: 2.5-4.0 mm.  
 mean: 3.03 mm.

To summarise, *M. superciliaris* and *M. leucomelanura* can be separated in the hand by reference to the wing formula. In *M. superciliaris* the wing point falls between the 3rd and 4th/5th primaries — usually 3rd/4th or 4th. When the 3rd primary is shorter than the 4th it is usually (90% of the birds) only 0.5 or 1.0 mm shorter. In *M. leucomelanura* the wing point is always either the 5th pri-

mary or 5th/6th primaries. The 3rd primary is always shorter than the 4th and by at least 2.5 mm.

ACKNOWLEDGEMENT

Thanks are due to Derek Reed of the British Museum (Natural History), Tring, England for his help.

1 BEECH CRESCENT,  
SURREY HILLS PARK,  
BOX HILL ROAD,  
TADWORTH,  
SURREY,  
ENGLAND,  
March 13, 1986.

PETER F. BURNS

REFERENCES

ALI, S. & RIPLEY, S. D. (1983): Handbook of the Birds of India and Pakistan. Compact Edition. Oxford University Press, Delhi.  
ALI, S., RIPLEY, S. D. AND DICK, J. H. (1983):

A Pictorial Guide to the Birds of the Indian Sub-continent. Oxford University Press, Delhi.  
FLEMING, R. L. SR., FLEMING, R. L. JR. & BANGDEL, L. S. (1979): Birds of Nepal. Avalok Publishers.

16. FURTHER NOTES ON GARHWAL BIRDS: GREY FACED LEAF WARBLER (*PHYLLOSCOPUS MACULIPENNIS*)

Little is known about the breeding distribution of western race of the Greyfaced Leaf Warbler (*Phylloscopus maculipennis*). According to HANDBOOK (Vol. 8) it is found from Kashmir to Kumaun but the altitudinal distribution and habitat in summer have not been recorded, and this race has only been described from winter quarters.

While trekking from Dodital to Kedarnath on an expedition, partially sponsored by the Society I had kept special lookout for the species of *Phylloscopus*. On 7th June 1985, at

Belak (alt. 10,000') Tehri Garhwal District, I came across one feeding in a medium sized tree, 15 feet above me. I had excellent views of the bird, in good light, and satisfactorily identified it as Greyfaced Leaf Warbler (*Phylloscopus maculipennis*). It can be confused with *Phylloscopus proregulus* at a casual glance, but the grey face and throat and the bright yellow of the underparts were distinctive. I found about 5-6 scattered birds, possibly holding territories, in the Oak forest around the village. They all seemed to prefer foliage of the medium sized oak trees.